Before the
Federal Communications Commission
Washington, DC 20554

In the Matter of:	)	
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	)	
Wireless E911 Location Accuracy Requirements	)	PS Docket No. 07-114
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	)	

COMMENTS OF
THE INTERNATIONAL ASSOCIATION OF FIRE CHIEFS, NATIONAL ASSOCIATION OF STATE EMERGENCY MEDICAL SERVICES OFFICIALS, AND NATIONAL SHERIFFS' ASSOCIATION

The International Association of Fire Chiefs (IAFC), the National Association of State EMS Officials (NASEMSO), and the National Sheriffs' Association submit these comments in response to the Federal Communications Commission's (FCC) Fourth Further Notice of Proposed Rulemaking (4th FNPRM) issued on March 18, 2019 seeking comments on the FCC's proposed vertical accuracy metric of 3 meters for wireless calls to E911.[1]

The IAFC represents more than 12,000 leaders of the nation's fire and emergency service. The NASEMSO represents executive, medical, operational, regulatory, and other directors of statewide EMS systems in all 56 states and territories. The NSA represents the 3,080 sheriffs of the United States and has a total of more than 20,000 members.

[1] *In the Matter of Wireless E911 Location Accuracy Requirements*, PS Docket No. 07-114, Fourth Further Notice of Proposed Rulemaking, FCC 19-20 (March 18, 2019) (4th FNPRM).

The IAFC, and NASEMSO are members of the Cellular Telecommunications Industry Association (CTIA) 911 Location Accuracy Advisory Group (Advisory Group). The NSA, while not a member of the Advisory Group, endorses the position expressed in this filing.

Our organizations support the FCC in its efforts to improve the location information being provided to first responders from wireless devices during 911 calls. Accurate location information allows our members to provide lifesaving assistance in a safe and timely manner. More accurate location information is needed, and the +/- 3 meter metric proposed in FCC Fourth Further Notice of Proposed Rulemaking represents an important step towards achieving this accuracy. Consistent with the FCC's long-standing dedication to this issue and the critical needs of the public safety community, the FCC should proceed with its proposal to adopt a z-axis metric of 3 meters for 80 percent of wireless calls to E911 emergency services. The FCC should reduce the metric in five years' time, as technology develops.

I. A 3 METER METRIC SHOULD BE ADOPTED AND NARROWED OVER TIME

Throughout these rulemaking proceedings, the public safety community has advocated in favor of a singular goal: the achievement of accurate and reliable location information for a 911 caller using a wireless phone.

While the organizations are supportive of the FCC's rule requiring dispatchable location, we believe that an accurate and well-defined z-axis is a necessary alternative in order to ensure that first responders can find individuals that require aid. To this end, the FCC's Fourth FNPRM acknowledges that several public safety agencies have supported the adoption of a 2 meter vertical metric.[2] The Fourth FNPRM raises concern, however, about whether the technical feasibility of 2 meter compliance

[2] *See id.* ¶¶ 7 and 19.

has been demonstrated adequately in a testbed.[3] Further, the imposition of such a metric could potentially delay the carriers' implementation of the FCC's z-axis requirement.[4]

The Commission should not take any action that might delay the implementation of a vertical location requirement beyond the current deadlines. Instead, consistent with its previous analysis, the Commission should immediately adopt a 3 meter vertical location accuracy requirement and mandate its implementation in the top 25 cellular market areas (CMAs) by April 2021 and in the top 50 CMAs by April 2023.

The developing state of technology has been cited as a roadblock to achieving levels of accuracy considered ideal by public safety groups.[5] As IAFC representatives recently explained to FCC staff,[6] in addition to setting a 3 meter z-axis metric, the FCC should narrow the vertical metric over a timeframe as technology develops. The Commission should consider narrowing the z-axis metric in five years' time, when technology has advanced.

The need for highly accurate floor-level information is important not just in responding to life-threatening emergencies, but also to protect the safety of first responders during building fires, active shooter situations and other emergencies. The ability of incident commanders to know the location of firefighters, officers and medical personnel inside a large, urban building will be a major step forward with indoor location technology. Therefore, in order to serve the needs of both the public and first responders, the FCC should immediately adopt its 3 meter metric proposal, ensure its implementation in major cities by the existing deadlines for vertical location accuracy, and act upon narrowing the metric in 5 years' time.

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[3] *See id.* ¶ 19.

[4] *See id.* ¶ 28.

[5] *See* Letter from Matt Gerst, Vice President, Regulatory Affairs, CTIA, to Marlene H. Dortch, Secretary, FCC, PS Docket No. 07-114, Attachment A, Roadmap for Improving E911 Location (March 7, 2019).

[6] *See* Letter from Brandon W. Allen, Manager, Government Relations, IAFC, to Marlene H. Dortch, Secretary, FCC, PS Docket No. 07-114, Attachment A, Roadmap for Improving E911 Location (April 30, 2019).

II. THE COMMISSION SHOULD REAFFIRM THE REQUIRED DEFINITION OF DISPATCHABLE LOCATION

As the Commission clearly indicated in its 2015 Fourth Report and Order, the definition of dispatchable location is the "the civic address of the calling party plus additional information such as floor, suite, apartment or similar information that may be needed to adequately identify the location of the calling party."[7] Critical to this definition is not just the address, but also the exact floor and the exact suite or apartment where the caller is located.

The FCC's definition of dispatchable location should not come as a surprise to the wireless carriers given the fact that this is the same definition that was included in their Roadmap.[8] Nevertheless, as the signatory associations on this document have previously highlighted,[9] the wireless carriers have been working actively to confuse the definition of dispatchable location and dilute its requirements.

The most recent example of this was in the carriers' report addressing the results of testing of the National Emergency Number Database (NEAD).[10] The report considered three different types of test results, including (i) the civic address, which the report acknowledged did not qualify as dispatchable location in many instances, (ii) Dispatchable Location Level 1 (DL1), which only

[7] 47 C.F.R. section 20.18 (i) (1).

[8] *See* Letter from John Wright, APCO International, et al., to Marlene H. Dortch, Secretary, FCC, PS Docket No. 07-114 (April 30, 2019).

[9] *See* Letter from Vincent Talucci, Executive Director and CEO, International Association of Chiefs of Police, *et al.*, to Marlene Dortch, Secretary, Federal Communications Commission, PS Docket No. 07-114 (Oct. 1, 2018); Letter from Vincent Talucci, Executive Director and CEO, International Association of Chiefs of Police, *et al.*, to Marlene Dortch, Secretary, Federal Communications Commission, PS Docket No. 07-114 (April 28, 2017); Letter from Vincent Talucci, Executive Director and CEO, International Association of Chiefs of Police, *et al.*, to Marlene Dortch, Secretary, Federal Communications Commission, PS Docket No. 07-114 (Feb. 22, 2017).

[10] *See E911 Location Test Bed Dispatchable Location Summary Report*, ATIS Test Bed Program Management (April 2019).

identifies the correct portion of the building, not the correct unit number, and (iii) Dispatchable Location Level 2 (DL2), which includes the FCC's requirement of the correct unit number.[11]

The obfuscation of the definition of dispatchable location should raise concerns within the FCC. Emergency first responders will spend significantly more time in their search for someone in need with dispatchable location information that does not meet the FCC requirement, namely civic address and DL1. This can be the difference between saving a life and finding a caller too late. The test bed results did not identify a high level of accuracy for the NEAD solution. The report found that only 9.2% of the wireless test calls successfully identified a DL2 dispatchable location and correctly reported meeting this DL2 requirement, satisfying the FCC's rules.[12]

Given these results, the FCC should promptly direct the wireless carriers to focus additional efforts on achieving compliance with the DL2 requirement and on developing the NEAD database further to ensure that a DL2 location is achieved, with significant yield. Otherwise, the carriers should be required to meet both the FCC's existing horizontal location requirement and a vertical requirement of 3 meter accuracy for at least 80% of wireless calls.

While this notice is focused on establishing a z- axis metric, the Commission should also review the metric for x and y coordinates because they are the fallback to dispatchable location. The current 50-meter x/y search ring could encompass multiple buildings or buildings adjacent to the horizontal location of the caller, and therefore inaccurately identify where a caller is located on a horizontal plane. It appears there are other technologies available to supplement the Wi-Fi approach examined during the ATIS test, which can improve the overall location accuracy achieved. Therefore, the Commission should consider adopting a more stringent metric for x and y coordinates.

[11] *See id.* at 7-8.

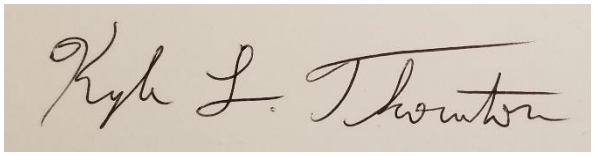
[12] *See id.* at 10.

Conclusion

The below-signed support the adoption of a 3 meter z-axis metric, with FCC consideration and adoption of a narrower metric in five years' time.

Sincerely,

Fire Chief Dan Eggleston, EFO, CFO, CMO
President and Chairman of the Board
International Association of Fire Chiefs



R. Keith Wages, State EMS Director
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